

Tennessee Pollution Prevention Partnership Success Story



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Relamping Phases II and III Further Reduce Our Carbon Footprint

The Member

Aircraft manufacturing operations have been conducted at Triumph Aerostructures' Nashville site since the early 1940's, when a predecessor company opened the plant to build bombers in support of the war effort. Today, the Nashville site builds commercial and military aircraft components, including wings, wing panels, stringers, spars, and empennages. Its customers include Airbus, Gulfstream, Cessna, and Lockheed Martin. The plant employs more than 800 people, and has a total footprint of greater than 2 million square feet under roof. The facility continually seeks opportunities to conserve resources and reduce the environmental impacts of its operations.

The Story

In early 2009, an Energy Team was formed at Triumph in order to identify energy and water savings opportunities around the facility. Facility lighting was identified by the Team as a candidate for very significant electricity savings. Facility lighting in most areas of the facility was provided by inefficient HID (metal halide) lamps. In order to achieve a significant savings in electricity costs, Triumph elected to replace the metal halide lamps in many areas with more efficient (lower wattage) fluorescent fixtures. The project was conducted in phases. For Phase I of the project (completed September 2009), approximately 1,400 HID lamps were replaced, as documented in a previously submitted Success Story. Due to the success of Phase I of the project, funding was approved to replace lighting in other areas of the facility in calendar year 2010.



The Success

Phases II and III of the project were completed July and December 2010, respectively. For both phases of the project combined, approximately 1,460 HID lamp fixtures were replaced with high efficiency T8 fluorescent fixtures. Also, approximately 420 HID lamps were identified as being no longer needed and were removed from service without replacement. The facility now benefits from an annual reduction in electricity usage of more than 2.6 million kilowatt hours (kWh), and an annual utility cost savings of approximately \$190,000. For all three phases of the project combined, approximately 80% of the active facility has now been relamped.

The Pollution Prevented

There is now a reduction in greenhouse gas (carbon dioxide – CO₂) emissions at the local power plant of approximately 2,600 tons per year. This is equivalent to removing 460 passenger cars from the road, and a savings in the associated gasoline usage of approximately 270,000 gallons per year.

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